



Canadian
Network
of Asset
Managers

***An Introduction to
CNAM's MAMP2
AM Competency Framework***

Asset Management BC Conference

5th November 2019

Iain Cranston



Agenda

- 1) Background / Rationale
- 2) Funding Partners & National Partners
- 3) Program Goals & Timelines
- 4) Why a Competency Framework?
- 5) Competency Management Uses
- 6) Overview of the AMCF
- 7) Questions and Feedback Welcome

About CNAM – the Canadian Network of Asset Managers

- CNAM is the national association of **public infrastructure asset management** professionals in Canada.
- Formalized as a not-for-profit association in 2009 to promote **industry awareness**, **innovation** and **knowledge transfer** of public infrastructure asset mgmt.
- Our members develop policy, tools and technologies, which improve the level of service for public infrastructure assets in every province and territory.
- CNAM shares that knowledge with other members and stakeholders through our online resources, the annual conference and various committees and events.

www.cnam.ca



CNAM LinkedIn Group
[linkedin.com/groups/3989175](https://www.linkedin.com/groups/3989175)



@CNAMAssn



About CNAM – the Canadian Network of Asset Managers

- Established by seven visionary municipalities to further the practice of asset management in Canada.



Why a Competency Framework?

“Attracting and retaining qualified employees ranks second only to the economy as the most significant threat to municipal organizations today”

Canadian Association of Municipal Administrators

How Big is the Problem?

According to the Government of Canada there were 5162 municipalities (census subdivisions) in Canada

Assume just 10% want to hire a dedicated AM person

That's 516 people!

Do we have that many people available? What if its 25%? What about the private sector?

Funding Partners

This initiative is offered through the Municipal Asset Management Program, which is delivered by the Federation of Canadian Municipalities, and funded by the Government of Canada



Government
of Canada

Gouvernement
du Canada



Government Finance
Officers Association



National Partners



CNAM National Partners for MAMP2

CAMA – Canadian Association of Municipal Administrators - <http://www.camacam.ca/>

CIP – Canadian Institute of Planners - <http://cip-icu.ca/>

CPWA / APWA – Canadian Public Works Association - <https://www.cpwa.net/>

CSCE – Canadian Society for Civil Engineering - <https://csce.ca/>

CWWA – Canadian Water and Wastewater Association - <http://www.cwwa.ca/>

GFOA – Government Finance Officers Association - <http://www.gfoa.org/>

IAM – The Institute of Asset Management - <https://theiam.org/>

IPWEA – Institute of Public Works Engineering Australasia - <https://www.ipwea.org/>

MNAI – Municipal Natural Assets Initiative - <http://mnai.ca/>

PEMAC – Plant Engineering and Maintenance Association of Canada - <https://www.pemac.org/>



Program Goals

Develop an Asset Management Competency Framework for Canadian Communities (AMCF) that will:

1. Provide alignment on the scope of AM, while highlighting the connections between the various professions that overlap with the interdisciplinary practice of AM, as represented by the range of national partners involved in the development process.
2. Establish a shared understanding of the competencies – the knowledge, skills, and behaviors – that a community's workforce should possess to best deliver their asset management programs.
3. Provide communities with a foundation to identify AM capability gaps and the structure needed to create a plan to address those gaps with targeted development opportunities.
4. Provide communities with better information to facilitate the hiring of qualified candidates in their organization.

Program Timelines

Lengthy development through 2019, and continuing to welcome feedback

Beta Review, issued to CoPs and others

– Oct. 7 to Nov. 15

Final Edits and Approvals

– Nov. 15 to end of year

Public Release of AMCF

– January 2020



Why a Competency Framework? Cont'd

CNAM and the National Partners felt that **capacity/capability development** was the most beneficial action for supporting Canadian public sector organizations.

Competency Management is about developing ability:

A Competency is...

the integration of a cluster of related knowledge, skills, and behaviors that contribute to individual and organizational performance, i.e. **the ability to perform a set of related tasks.**

Competency Management Uses

- ✓ Assuring Competence
- ✓ Identifying and resolving capacity/capability gaps
- ✓ Integration of HR practices
- ✓ Developing learning and development programs
- ✓ Supporting and simplifying recruiting and selection
- ✓ Improving / aligning organizational culture
- ✓ Communicating performance expectations
- ✓ Succession and workforce planning

AMCF Overview

PART 1

AM Competency Framework

Terminology

Competency Management Uses

AM Competency Categories

AM Functional Areas

Proficiency Levels

AM Competencies

PART 2

Implementing the AMCF

Implementation Process

Competency Management Program Activities

Learning and Development Activities

Recruiting and Selection Activities

Performance Communication Activities

Succession and Workforce Planning

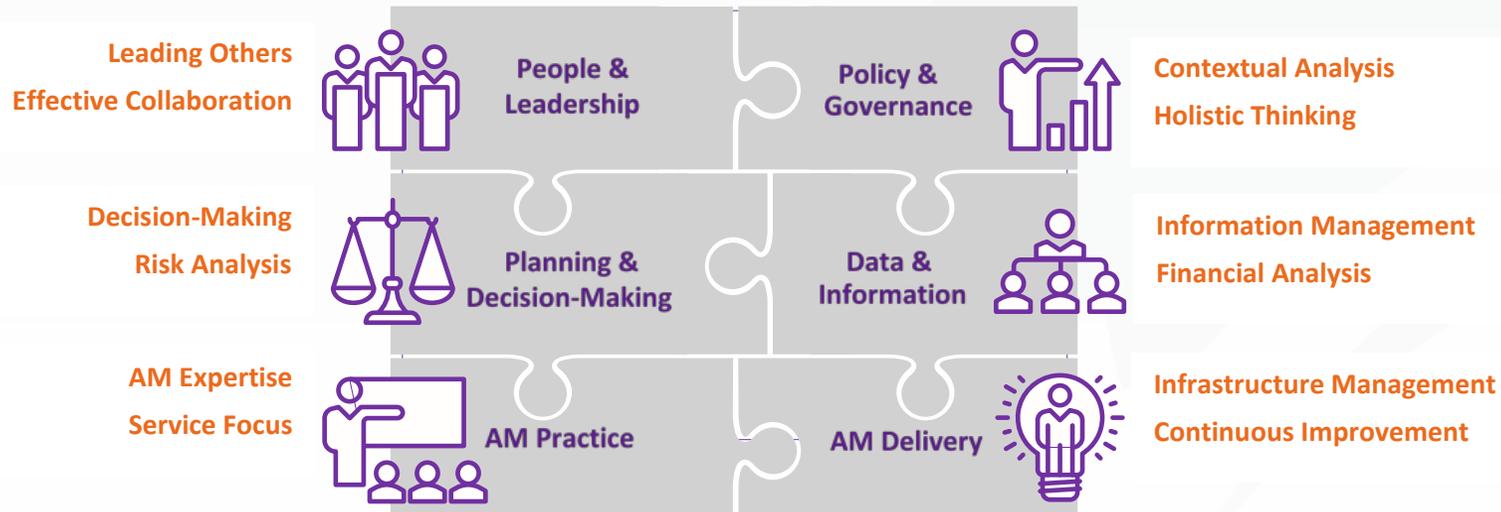
Activities

Considerations and Cautions

Appendices (incl. the AM Responsibilities)

AMCF Overview: The AM Competencies

- 12 Competencies, 2 per category
- Each one described in detail
- Standard proficiency scale used



Effective Collaboration

Effective collaboration is the ability to identify and initiate working relationships and to develop and maintain them in a way that benefits both parties. An AM practitioner would use their emotional intelligence to effectively manage relationships, facilitate team problem-solving, and communicate purpose, values and vision. They would build and support cross-disciplinary and cross-functional teams, and foster, collaborative, contextual decision-making and planning that empowers individuals and teams.

"A relationship is not based on the amount of time spent together; it is based on the foundation built together"
 – Unknown

Effective Behaviors:

- ✓ Works with others towards shared goals. Participates actively and equitably in group work. Facilitates the same in others. Able to identify, engage and maintain relationships between the right stakeholders to effectively achieve goals.
- ✓ Can appropriately and effectively identify, surface and communicate disagreements and sensitive topics. Facilitates the sharing of diverse viewpoints to achieve a more comprehensive understanding of a problem or situation. Encourages respectful dialogue which explores underlying contextual frames and biases, acknowledges feelings, and gives all participants equitable attention and consideration. Focuses on facts and reasoning, while being descriptive and non-judgmental. Utilizes direct, simple, transparent and honest communication, while maintaining a calm, rational and attentive demeanor. Tactfully challenges conclusions and seeks verification of evidence and assumptions from other unbiased sources. Leads value-based discussions on solutions or trade-offs.
- ✓ Observes others and maintains awareness of both verbal and nonverbal messages to recognize cues to their feelings, interests, thinking and perspectives. Asks questions to clearly understand what is being communicated, and the underlying causes, feelings, biases and reasoning behind what has been communicated. Applies knowledge of organizational and community emotional currents and power dynamics to persuade or convince key decision-makers and influencers.
- ✓ Demonstrates the ability to communicate complex or technical concepts effectively to all audiences. Identifies the audience for communications and assesses and applies best methods for communicating to that audience. Produces clear, concise, logical and grammatically correct written material to convey intended information in a compelling manner.

Expected Proficiency:

AM Functional Area / Role	Basic	Intermediate	Advanced	Expert
Asset Management (dedicated)				
AM Manager				X
AM Project Manager / Advisor			X	
AM Coordinator / Analyst		X		
Senior Leadership			X	
Engineering	X			
Operations & Maintenance		X		
Planning		X		
Finance		X		
Human Resources				X
Procurement / Supply Chain			X	
Information & Records	X			
IT / IS	X			

AMCF Overview: Competency Management Program Activities

- Learning and Development Activities
 - Experiential Learning Activities
 - Social Learning Activities
 - Formal Learning Activities
- Recruiting and Selection Activities
- Performance Communication Activities
- Succession and Workforce Planning Activities

The 70-20-10 Learning Model

70% Experiential learning – hands on experience with daily tasks and challenges. Application of theoretical knowledge in a practical environment.

20% Social learning – through interactions with more experienced individuals for guided observation or guided practice. It is typically self-directed learning and is less structured than formal learning.

10% Formal learning – provides theory and facts, and is typically provided in a structured, classroom environment with defined learning objectives, and facilitated by a trained instructor.

Canadian
Network
of Asset
Managers

**Thank You For Your
Support!**

Questions?

iain@icinrastructure.com



5 - Cohort Support Program Overview



- Basic AM Training
- Ongoing Virtual Meetings
 - x6
- Help-Desk Support
- Discussion Forum
- Assisting in AMCF development

3 - Program Scope and Principles

Competency Framework

- Knowledge, skills, and behaviours
 - Including AM Functional and Soft Skills
- Scalable for communities
 - Population size
 - Level of AM maturity
- Applicable to any geography
- Widely reviewed by users and experts
- Supporting staff development and hiring requirements

Things to avoid...

- Not org design / governance structure focused, that's up to each org to decide.
- Not IT system specific, i.e., will talk about GIS, but not specific systems / configurations.
- Not asset class specific, but can use as examples.
- Not getting into business processes / guide for AM

Asset Mgmt Content

- Organization-wide: not department/asset specific
- Organization-deep: Policy-Planning-O&M...

- AM best practice: balancing service / cost / risk
- Financial sustainability
- Environmental sustainability & natural assets

- Aligning with...
 - FCM AM Readiness Scale
 - ISO 55000
 - UN's Sustainable Development Goals

- Satisfying FCM grant requirements
 - Municipal cohort groups
 - Knowledge mgmt / SOP requirement

6 - What is Competency Management?

Competency Management is...

the cataloging, management and development of competencies in an organization.

- Links people management (i.e. HR) with the organization's strategic needs.
- Gives an organization the ability to assess and manage the capacity of its human resources to achieve its vision, mission and goals.
- Achieves an organizational approach to three key components:
 - Competencies
 - Competency profiles
 - Competency assessment

6 - What is a Competency?

A Competency is...

the integration of a cluster of related knowledge, skills, and behaviors that contribute to individual and organizational performance, i.e. the ability to perform a set of related tasks.

Knowledge	Skills	Behaviors
Facts and lessons learned	The basic steps in a task	How someone does a task (i.e. how they act and conduct themselves)

6 - Competency Management Benefits

- ✓ Better strategic alignment
- ✓ Modular, but integrated development
- ✓ Communicates clear expectations
- ✓ Objective standard, validated criteria, measured uniformly and transparently
- ✓ Powerful resource and succession planning tool
- ✓ Mirrors many AM best practices (iterative, collaborative, integrates silo's, etc.)

6 - How is a Competency Described?

Competency Name
Competency Description



Competency Elements



Proficiency Level
(optional)



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Engineering	X			
Operations & Maintenance		X		
Planning		X		
Finance		X		
Human Resources				X
Procurement / Supply Chain			X	
Information & Records	X			
IT / IS	X			

6 - Proficiency Levels

Remember competencies are the ability to perform a *set of related tasks...*

- These tasks can be bundled into different things like a role, or a job family, or a discipline, or a type of job or employee (i.e. managers, front line water/wastewater staff, etc.)
- For each of these groups you can define a level at which the individual's in that group should perform at.
- These “proficiency levels” can be described in a generic and standardized way (see the AMCF) or by setting out specific effective behaviors that apply at each level.

8 - AMCF Overview: Proficiency Levels

- Standardized scale – not specific to each competency
- Generic descriptions or examples of expected behavior
- A communication support tool, a common language for discussing expectations

BASIC	INTERMEDIATE	ADVANCED	EXPERT
<ul style="list-style-type: none"> ▪ Familiar with basic concepts and terminology. ▪ Developing understanding of the competency within the scope of the job. ▪ Applies simple, well-defined processes and established practices in routine situations. ▪ Requires structured direction and guidance. ▪ Seeks to understand broader context and develop capability. 	<ul style="list-style-type: none"> ▪ Well versed in theory and applies key concepts or principles. ▪ Understands context, rules and processes. Anticipates and addresses problems. ▪ Applies a structured analytical process to unfamiliar or more complex problems. ▪ May require guidance and review with complex or non-routine applications. ▪ Applies judgement and takes appropriate actions within job scope. 	<ul style="list-style-type: none"> ▪ Capable of guiding and coaching others in theory and practice. Acknowledged go-to person. ▪ Has a thorough understanding of the competency within the local application. ▪ Leverages internal and external best practices to break down systemic barriers and resistance to change. ▪ Provides creative solutions to complex or undefined problems without assistance. ▪ Explores innovative ways to enhance processes / procedures to improve overall results. 	<ul style="list-style-type: none"> ▪ Possesses extensive knowledge and experience, both broad and deep – an authoritative source and recognized thought leader. ▪ Improves standards of practice relative to the competency area. ▪ Contributes integrated thinking at a strategic level. Anticipates and facilitates change. ▪ Applies abstract or conceptual thinking to resolve problems where no precedents exist. ▪ Drives continuous improvement, leads transformational change and/or industry innovation.

8 - AMCF Overview: AM Functional Areas and Roles

Asset Management (dedicated)

AM Manager

AM PM / Advisor

AM Coordinator / Analyst

Senior Leadership

Engineering

O&M

Planning

Finance

HR

Procurement / Supply Chain

Information & Records

IT / IS

- Used to define AM Competency Profiles
- Dedicated AM functional area further broken down into 3 generic AM Roles
- AM Competencies are mapped to each AM Functional Area or AM Role with a standard proficiency level
- AM Roles are initial effort to establish standard profiles for ongoing development efforts

8 - AMCF Overview: Implementing an AM Competency Management Program

Step 1: Define the Business Case for Your Program

- A. Identify the Context
- B. Define the Purpose
- C. Set Your Goals
- D. Develop a Program Charter

Step 2: Customize Your Competency Approach

- A. Calibrate the AMCF to Your Organization
- B. Determine How to Integrate the AMCF into Your Organization

Step 3: Plan Your Program

- A. Define the Program Scope
- B. Develop a Program Roadmap
- C. Develop a Program Implementation Plan

Step 4: Execute Your Program

- A. Execute Your Roadmap and Plans
- B. Conduct a Competencies Gap Analysis

Step 5: Sustain Your Program

- A. Maintain Communication and Leadership Support
- B. Monitor, Measure and Report on Your Program
- C. Review, Analyze and Evaluate Your Program
- D. Continually Improve Your Program